Information for File 2005-1177-JJY

Project Name: Providence, Empire Township

Applicant: Heritage Development of Minnesota (Stephen Bona), 422 East County Road D, St. Paul, MN 55117, 651-481-0017, ext. 103

Agent: Kjolhaug Environmental Services Company (Melissa Barrett), 26105 Wild Rose Lane, Shorewood,, MN 55331, 952-401-8757

Corps Contact: Joe Yanta, Regulatory Branch, Corps of Engineers, 190 East Fifth Street, St. Paul, MN 55101-1638, 651-290-5362

E-Mail: joseph.j.yanta@mvp02.usace.army.mil

Primary City/County/State: Empire Township, Dakota County, Minnesota

Section/Township/Range: NW ¼ Section 20, T. 114 N., R. 19 W.

UTM Coordinates: East 489600, North 4946300

Decimal Degrees: Latitude 44.67191, Longitude 93.1312

Information Complete On: March 7, 2005

Posting Expires On: April 6, 2005

Authorization Type: LOP B

Project: The Providence development is a 160-acre residential, commercial, and public-sue development in Empire Township, Minnesota, north of Farmington and east of Trunk Highway 3. The applicant proposes to fill 1.81 acres of seasonally-flooded ditch system (a remnant of a larger, drained wetland) to facilitate site development. This ditch has several branches that traverse the site, flowing in several directions from the northwestern corner, then east and south to the southeastern site corner. This ditch is part of a system that flows into the Vermillion River (a designated trout stream) about 2,400 feet away.

Historically, a larger wetland probably existed on the site, although the soils are primarily mineral rather than organic soils, which suggests that the wetland was a seasonally flooded/saturated area along a natural drainageway. However, the ditch system probably drained most of this wetland. The existing ditch is a saturated/temporarily flooded riverine wetland dominated by reed canary grass, with only a few other nondominant species, and a fringe that is largely smooth brome grass and bluegrass. Farm fields lie beyond the grassy fringe. This ditch is long, narrow, and appears to have relatively low value and limited wetland functions, including limited habitat and limited water retention.

Avoiding the linear ditch is not feasible, and perhaps not preferable, considering its present conditions. (The applicant has provided a more detailed discussion of the avoidance-minimization-mitigation sequencing analysis.)

As compensatory mitigation for the proposed impact, the applicant proposes to create 2.27 acres of on-site wetland and waterways, 5.59 acres of upland buffer (planted with native species), and 1.78 acres of grassy swales. The created wetland and waterways should provide greater values and functions than the existing wetland. The upland buffer, the 3.17 acres of stormwater ponds, the 1.78 acres of swales, and the 0.64 acre of bioinfiltration facilities should help protect water quality in the wetlands and downstream waters. The

created/restored wetlands would include one 0.67-acre basin that would have an emergent fringe and a deeper, open-water center (up to 6.5 feet deep). Another 0.55-acre basin would be a wet meadow/marsh area with a deep point of only 2 feet. The remaining 1.05 acres of wetland would be a more persistent riverine wetland than the existing ditch, with an emergent fringe and a marshy center. This riverine wetland would be constructed as a meandering channel rather than the straight ditch that exists now The proposed hydrology is expected to put about 1.6 feet of water in the ditch during normal flows, with up to 3.5 feet during the 100-year flood. These depths would saturate the adjacent wetlands for at least part of the growing season, with occasional flooding and drying periods. The created waterway has been designed to meet guidelines for stormwater management within the designated Vermilllion River management zone as well as additional trout stream requirements. In addition, the buffers, bioinfiltration areas, and grassy swales would increase infiltration of storm water to the soils and reduce sedimentation. The ponds would be shaded with trees and shrubs as shown on the enclosed plans, to reduce water temperatures.

Much of the proposed mitigation could be considered in-kind, and all of the mitigation would be on site. It would be constructed concurrent with (not in advance of) project construction, so that there would be some temporal losses of wetland habitat and other functions. If the proposed buffer is credited at 25 percent (as a planted and managed native plant buffer), the project includes at least 3.77 acres of wetland mitigation credit. This level of mitigation provides more than 2:1 compensation for the 1.81 acres of jurisdictional wetland impact.

Drawings: See the enclosed maps and plans for more information.

Note: Site boundaries on this figure are approximate and do not constitute an official survey product.

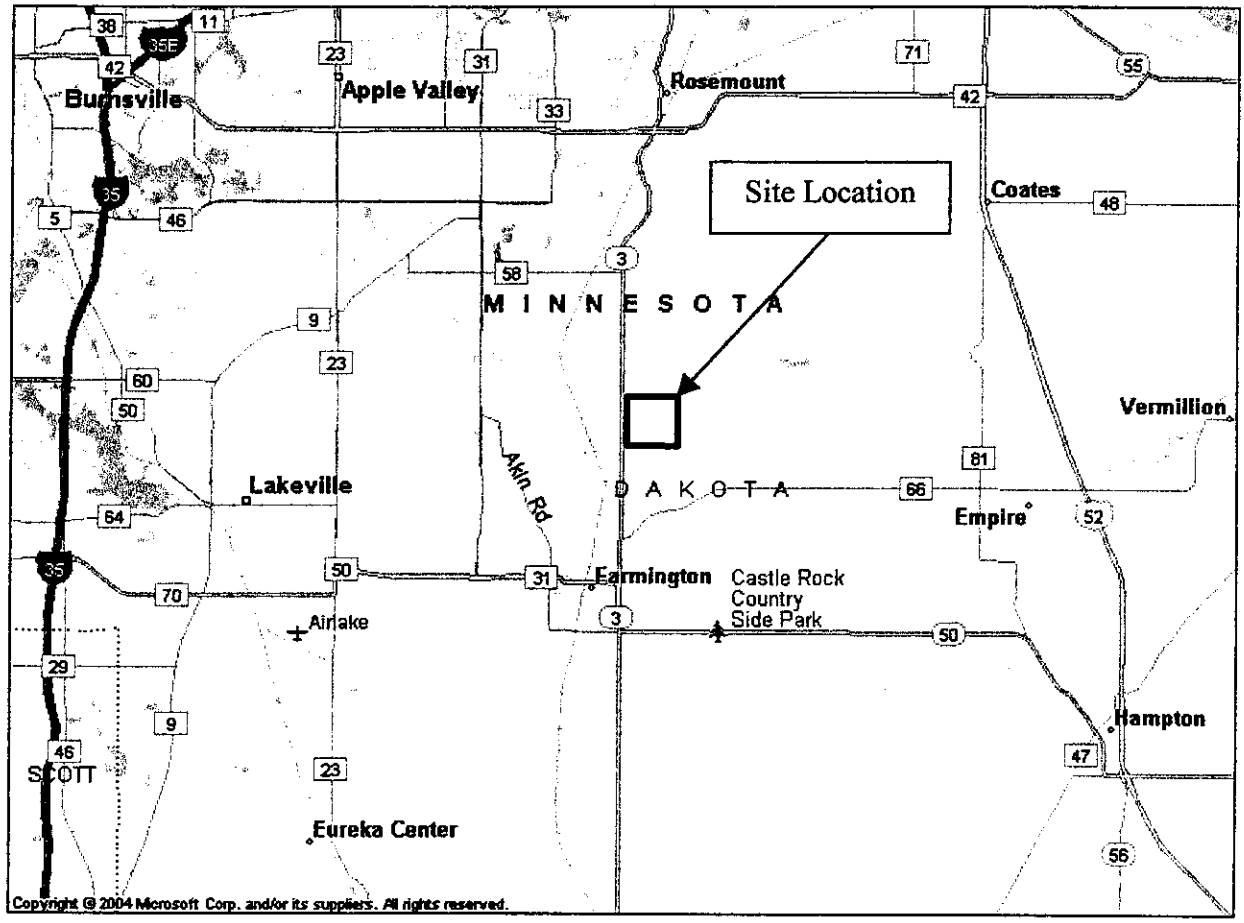


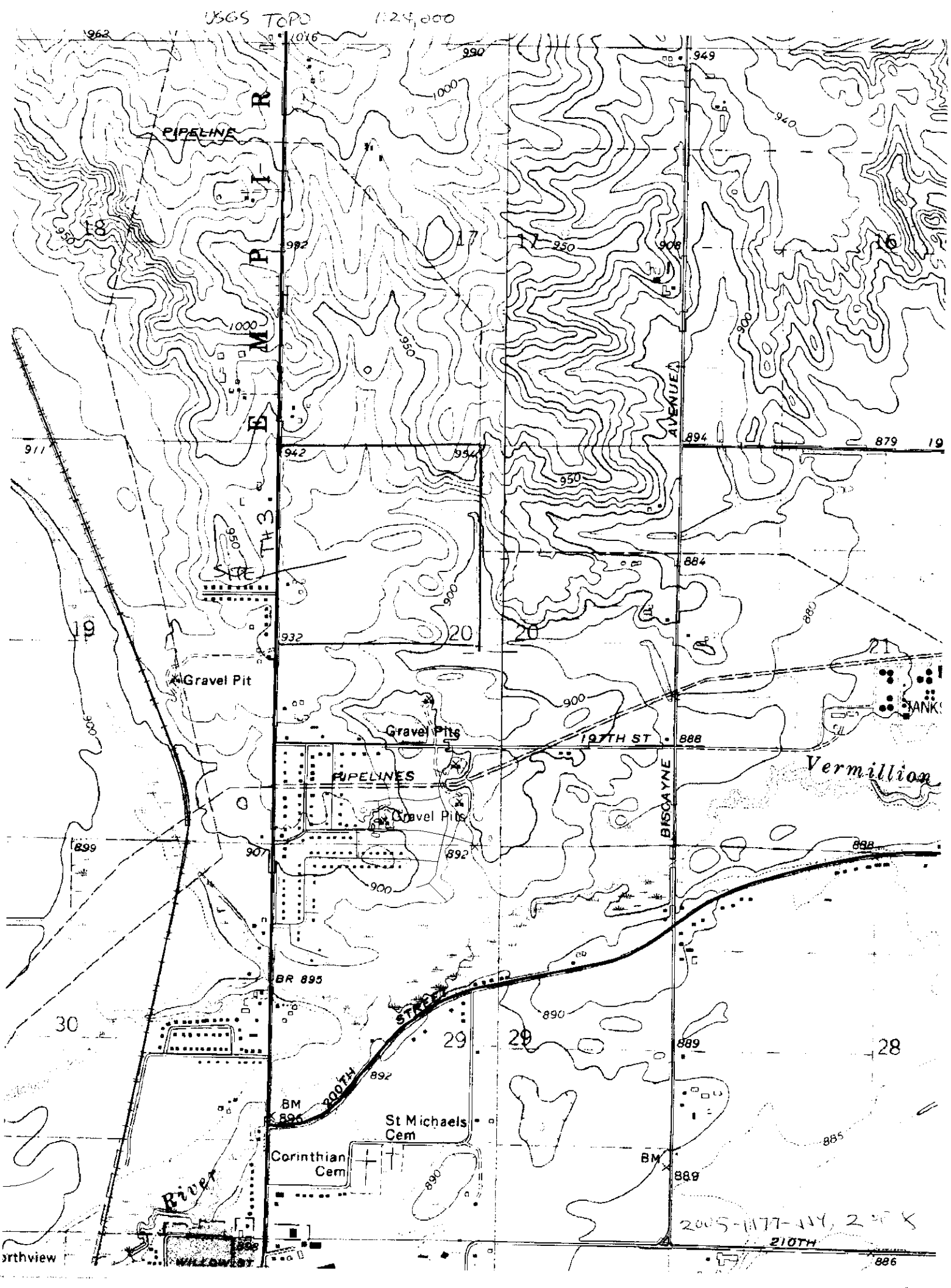
Figure 1 – Site Location Map

Providence (KES No. 2004-245)
Farmington, Minnesota

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

↑N **No Scale**

2005-1177-LSY, 1 of 2


USGS TOPO 1:24,000
PIPELINE
SITE
Gravel Pit
Gravel Pits
PIPELINES
197TH ST
BISCAYNE AVENUE
Vermillion
BR 895
200TH ST
BM 896
St Michaels Cem
Corinthian Cem
River
BM 889
210TH
2005-1177-NY, 2 of 5

Note: Site boundaries on this figure are approximate and do not constitute an official survey product.

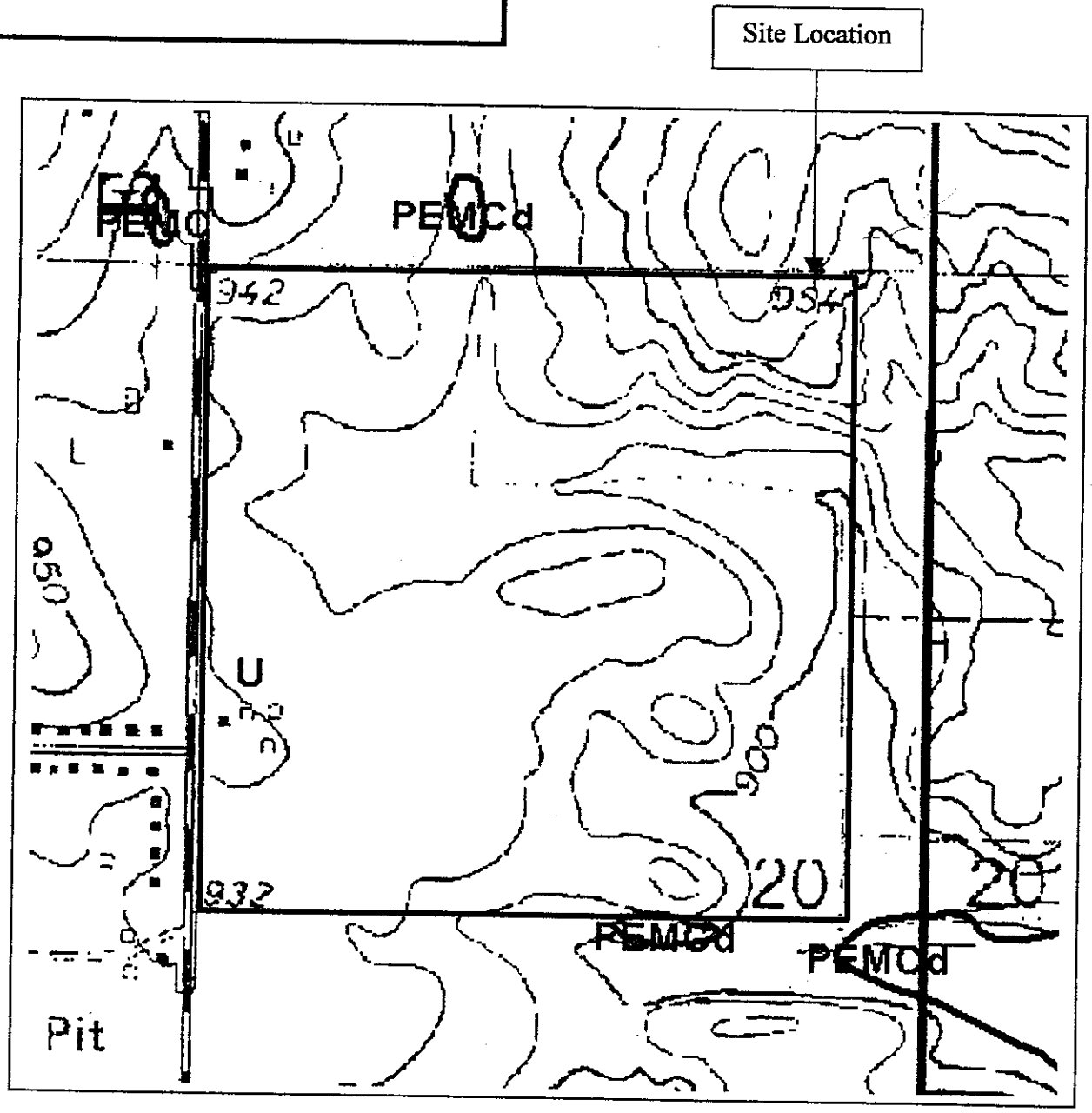


Figure 3 – NWI Map

Empire Township (KES No. 2004-245)
Farmington, Minnesota

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

N

1 inch ~ 528 feet

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TOPO/ WETLAND MAP

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PRELIMINARY GRADING PLAN

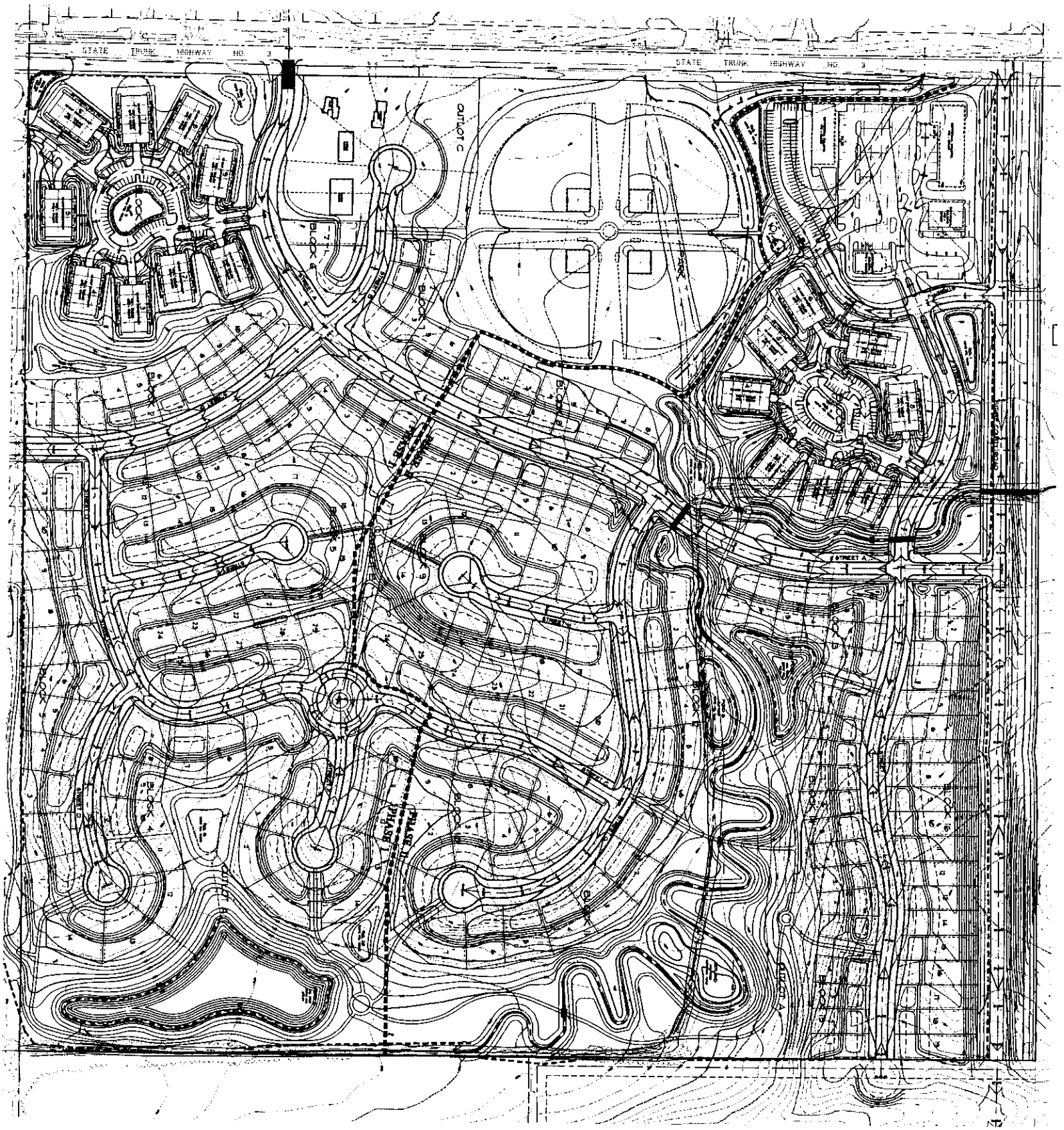
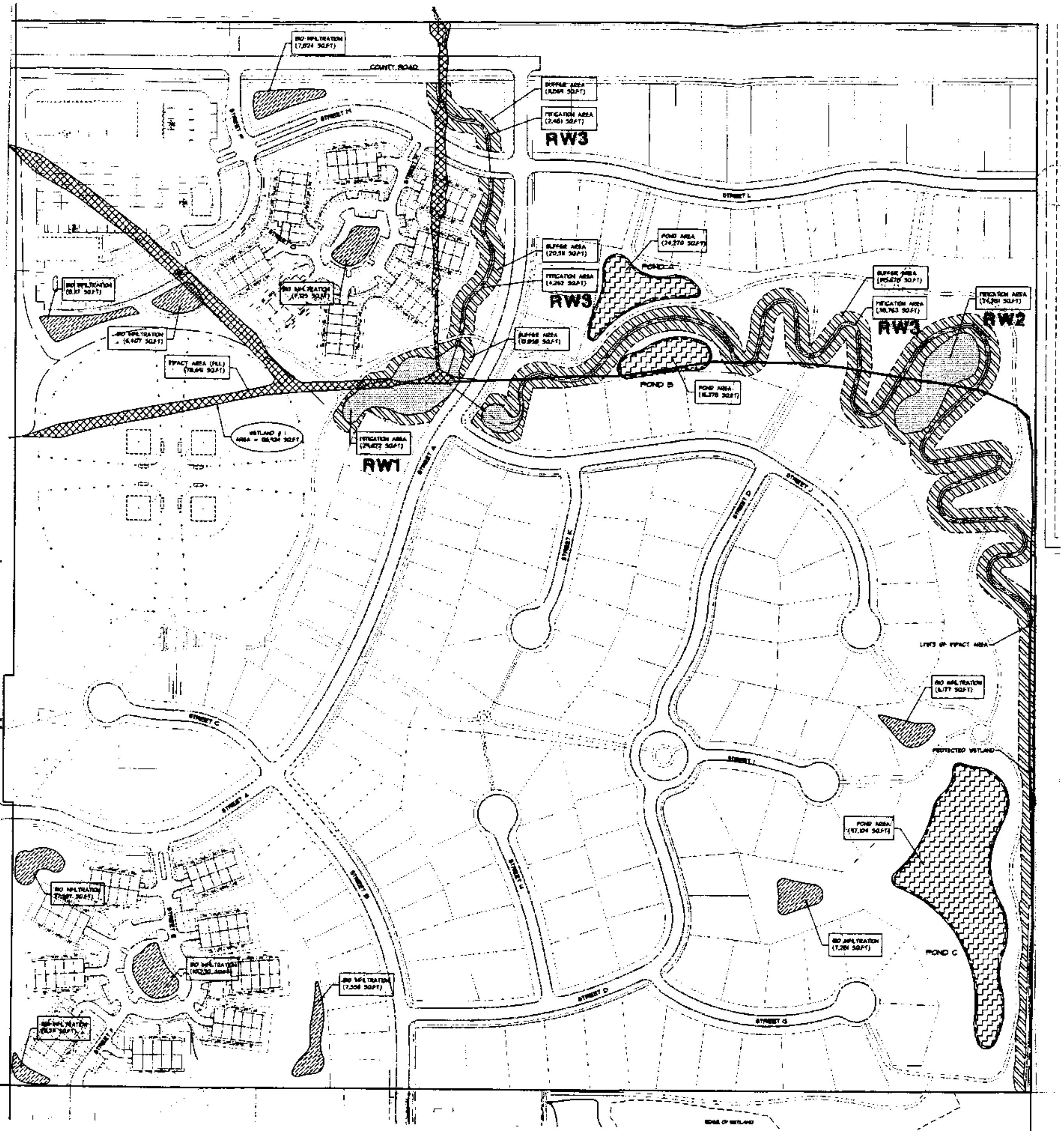


Figure 4 – Mitigation & Impacts Plan



RW – Replacement Wetland

NOTES

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

1. BACKGROUND INFORMATION TAKEN FROM BOUNDARY AND TOPOGRAPHY SURVEY PERFORMED BY LANDFORM, MINNEAPOLIS, MINNESOTA. EXPRESSLY FOR THIS PROJECT. ADDITIONAL UTILITY INFORMATION SHOWN WAS PROVIDED BY EMPIRE TOWNSHIP, MINNESOTA AS-BUILT DRAWINGS. UTILITY LOCATIONS TO BE FIELD VERIFIED PRIOR TO EXCAVATION / CONSTRUCTION. IF ANY DISCREPANCIES ARE NOTED, THE ENGINEER SHOULD BE IMMEDIATELY NOTIFIED FOR RESOLUTION.
2. WETLANDS WERE DELINEATED AND FIELD LOCATED BY KJOLHAUG ENVIRONMENTAL SERVICES ON NOVEMBER 18, 2004.

KEY

- WETLAND IMPACT AREA (FILL)
- WETLAND MITIGATION AREA
- NURP POND – PUBLIC VALUE CREDIT – WCA
- BIO INFILTRATION – PUBLIC VALUE CREDIT – WCA
- WETLAND BUFFER – PUBLIC VALUE CREDIT – WCA

WETLAND ALTERATION SUMMARY

WETLAND TYPE	CIRC. 39 TYPE (COWARDIN)	AREA (SQFT.)	AREA (Acres)	IMPACT (SQFT.)	IMPACT (Acres)	PVC (SQFT.)	PVC (Acres)	MITIGATION (SQFT.)	MITIGATION (Acres)	RETAINED/TOTAL (SQFT.)	RETAINED/TOTAL (Acres)
1	3 (PEMC/A)	86,924	2.00	78,8[illegible]	1.81	–		98,899	2.27	107,102	2.46
NEW BUFFER	–	–		–		243,916	5.60	–		–	
NEW BIO INFILTRATION BASINS	–	–		–		71,593	1.64	–		–	
NEW PONDS	–	–		–		137,752	3.16	–		–	
TOTAL:		86,924	2.00	78,8[illegible]	1.81	453,263	10.40	98,899	2.27	107,102	2.46

OWNER/DEVELOPER

HERITAGE DEVELOPMENT

ARGUS

CITY

Empire Township

CIVIL SHEET INDEX

C1.1 EXISTING CONDITIONS (OVERALL)
C3.1 PRELIMINARY OVERALL GRADING PLAN
C3.9 WETLAND MITIGATION PLAN
C3.10 TYPICAL STREAM CROSS SECTIONS
C3.11 TYPICAL STREAM CROSS SECTIONS
L2.1 PRELIMINARY LANDSCAPE PLAN

REVISION HISTORY

07/18/05 WETLAND PERMIT SUBMITTAL

PROJECT MANAGER REVIEW

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

WETLAND PERMIT SUBMITTAL
FEBRUARY 18, 2005

PROJECT:
PROVIDENCE
EMPIRE TOWNSHIP, MN

LANDFORM
MINNEAPOLIS • PHOENIX

FILE NAME C30HER05.DWG
PROJECT NO. HER04005

WETLAND MITIGATION PLAN
C3.9

NORTH

0 120 240
SCALE IN FEET

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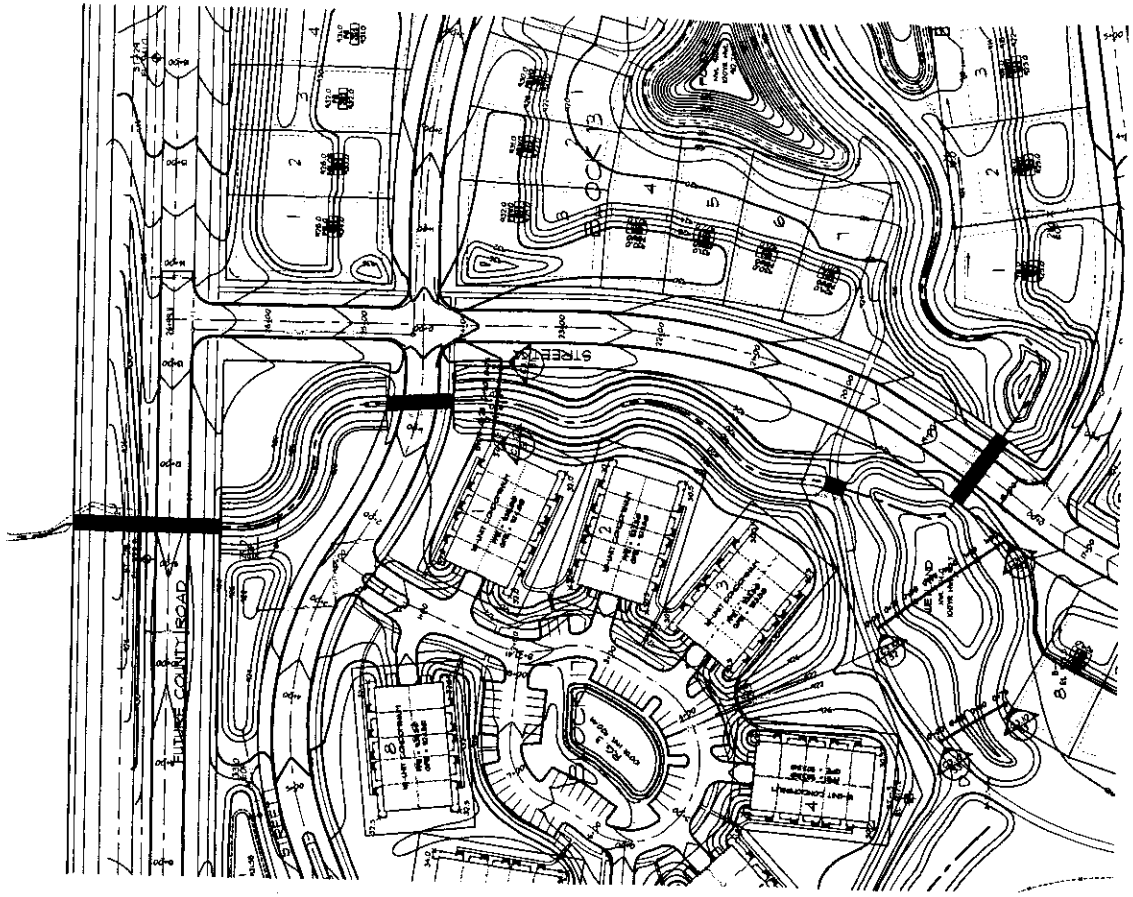
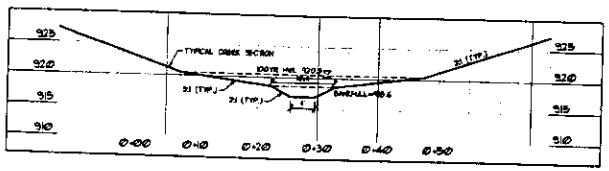
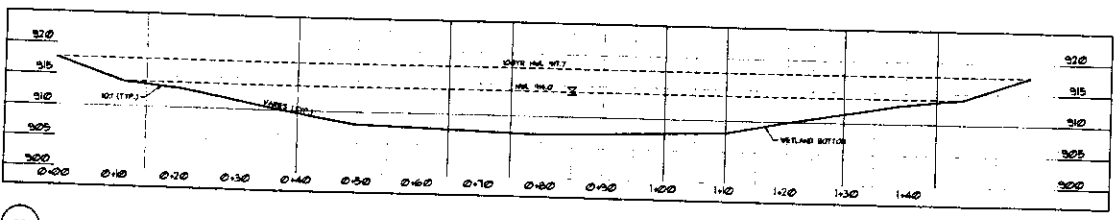
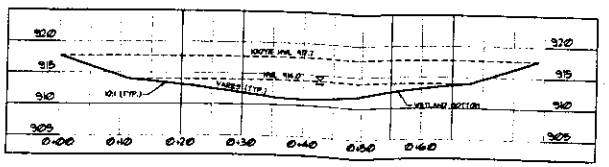




S1 SECTION #1



S2 SECTION #2



S3 SECTION #3

0 60 120
SCALE IN FEET

OWNER/DEVELOPER

CITY

CIVIL SHEET INDEX

SHEET	TITLE
C1	EXISTING CONDITIONS (OVERALL)
C2	PRELIMINARY OVERALL GRADING PLAN
C3.4	WETLAND MITIGATION PLAN
C3.10	TYPICAL STREAM CROSS SECTIONS
C3.11	TYPICAL STREAM CROSS SECTIONS
L2.1	PRELIMINARY LANDSCAPE PLAN

REVISION HISTORY

DATE	DESCRIPTION
01/18/05	WETLAND PERMIT SUBMITTAL

PROJECT MANAGER REVIEW

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

WETLAND PERMIT SUBMITTAL
FEBRUARY 18, 2005

PROJECT:
PROVIDENCE
EMPIRE TOWNSHIP, MN

LANDFORM
MINNEAPOLIS · PHOENIX

FILE NAME C310HERD.DWG
PROJECT NO. HERD4005

TYPICAL STREAM CROSS SECTIONS
C3.10

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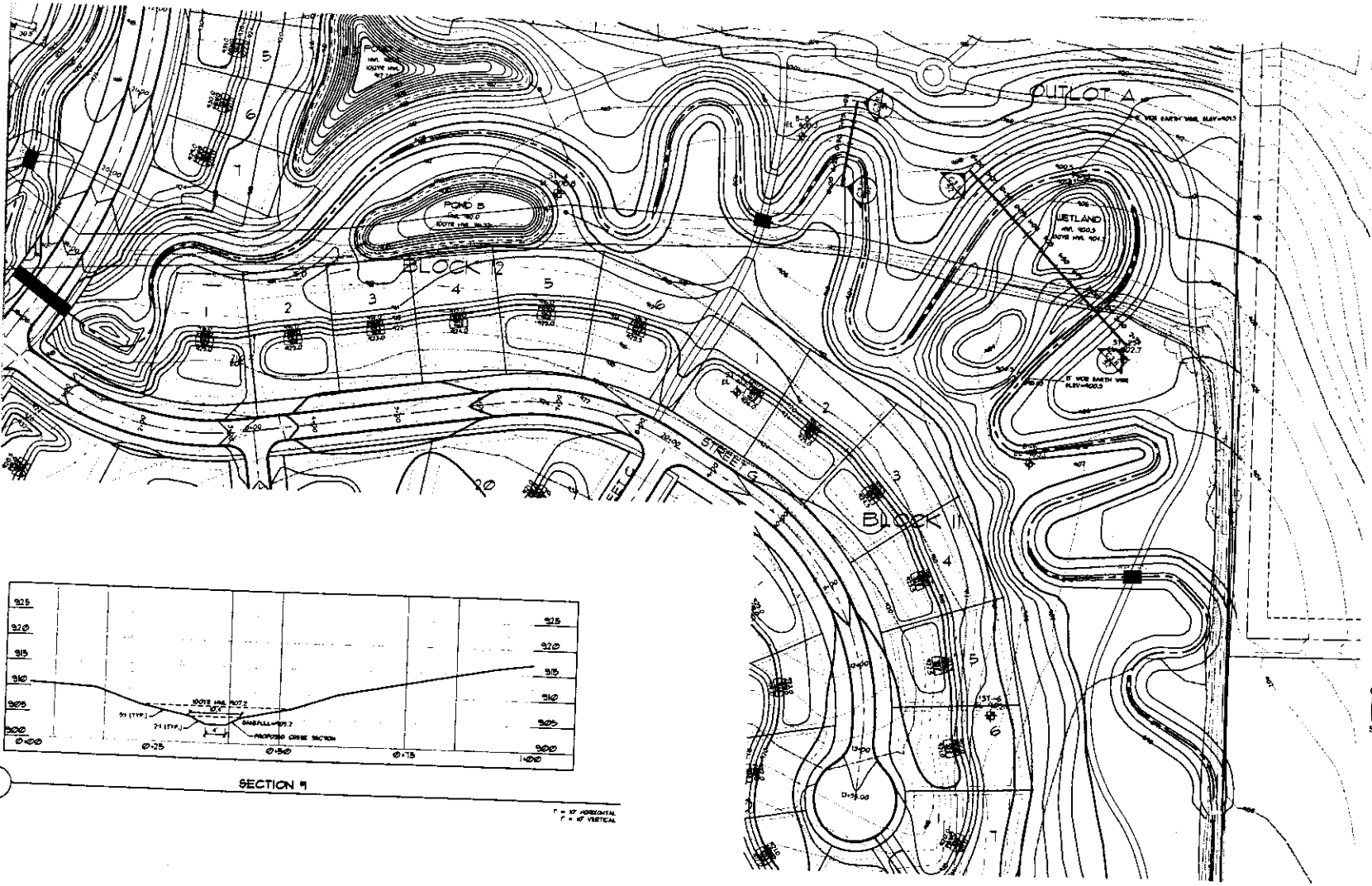
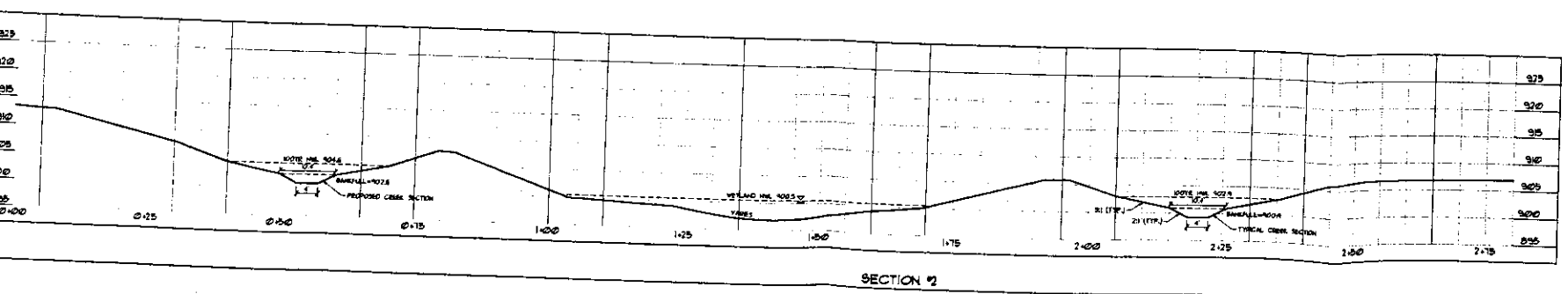
Figure 5 – Mitigation Detail & Cross Section Views





OWNER/DEVELOPER:

HERITAGE DEVELOPMENT

ARGUS

CITY:

Empire Township

CIVIL SHEET INDEX

REVISION HISTORY

01/8/05 WETLAND PERMIT SUBMITTAL

PROJECT MANAGER REVIEW

CERTIFICATION

PRELIMINARY
NOT FOR
CONSTRUCTION

WETLAND PERMIT SUBMITTAL
FEBRUARY 16, 2005

PROJECT:
PROVIDENCE
EMPIRE TOWNSHIP, MN

LANDFORM
MINNEAPOLIS - PHOENIX

FILE NAME: C3HHERCS.DWG
PROJECT NO.: HERO4005

TYPICAL STREAM CROSS SECTIONS
C3.11

2005-1177-24, 8 of 8

Figure 6 – Mitigation Detail & Cross Section Views